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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,966	10/05/2005	Markus Neumann	DE 030122	6158

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EXAMINER

JOHNSON, RYAN .

ART UNIT

PAPER NUMBER

2817

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/551,966

Applicant(s)

NEUMANN, MARKUS

Examiner

Ryan J. Johnson

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/05/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities: "Figure shows" on line 31 of page 6 should read "Figure 8 shows".

Appropriate correction is required.

Claim Objections

3. Claim 11 is objected to because of the following informalities: "diding" on line 2 of the claim is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knutson (U.S. Patent No. 3,581,239) in view of Knecht et al. (U.S. Patent No. 6,066,989).
6. Claim 1: Knutson discloses a device (Fig.1) for detecting the temperature of an oscillator crystal 40 that has a crystal vibrator 44, in particular in a mobile radio apparatus (although Knutson discloses this at column 1, lines 23-45, the examiner

notes that this is an intended use of the oscillator circuit), characterized in that a temperature sensor 52 is arranged in such a way that it is subjected to the same ambient temperature as the oscillator crystal (it is thermally connected; col.4,3-10), and that the temperature sensor 52 is electrically connected parallel to the terminals of the crystal vibrator 44 and at least one coupling capacitor 56. Knutson does not explicitly disclose that the crystal is on the same carrier and the same side as the temperature sensor and is not separated by a wall. Knecht et al. discloses a crystal oscillator circuit with a enclosed in a housing in order to act as an RF shield (col.4,21-33). Knecht et al. also discloses the temperature sensor located on the same side of the carrier as the crystal vibrator and not separated by a wall in order to reduce errors (col.3,32-50; Fig.2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have placed the circuit of Knutson in a housing in order to have provided the benefits of an RF shield as well as placed the thermistor on the same side of the carrier and not separated by any walls in order to have provided the benefits of reduced errors.

7. Claim 2: Knecht et al. discloses arranging the temperature sensor 16 in the oscillator crystal housing 52 (col.3,19-31; Fig.2) in order to provide the benefits as applied to claim 1 above.

8. Claim 3: Knecht et al. discloses that the temperature sensor is arranged of a printed circuit board (col.4,21-33) adjacent to the oscillator crystal housing 52 (The temperature sensor is inside the housing and adjacent to two walls; Fig.2) in order to provide the benefits as applied to claim 1 above.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Knutson (U.S. Patent No. 3,581,239) in view of Knecht et al. (U.S. Patent No. 6,066,989) as applied to claim 1 above, and further in view of Anastasyev et al. (U.S. Patent No. 6,208,213). Knutson and Knecht disclose the limitations of claim 1, but do not explicitly disclose that the carrier exhibits openings between the heat-emitting circuit and the oscillator circuit. Anastasyev discloses using cut-outs 4 surrounding the heat emitting elements (Fig.2; col.4,28-34) in order to provide thermal insulation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used openings between the heat-emitting circuits and the oscillating circuits of Knutson in order to have provided the benefits of thermal insulation.

Allowable Subject Matter

10. Claims 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: A constant current or voltage source being applied to the temperature sensor in order to evaluate temperature, as required by claims 5 and 9, or an evaluation circuit with the sensor in order to determine temperature, as required by claim 6, and in the context of claim 1, could not be found in prior art.

Conclusion

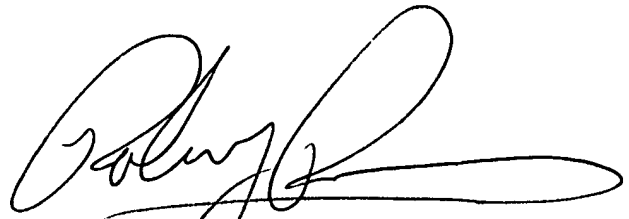
11: The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Funahara et al (U.S. Publication No. 2001/0019292), Tanaka et al. (U.S. Publication No. 2003/0231073), and Long (U.S. Patent No. 4,985,687) relate to temperature compensated crystal oscillators.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan J. Johnson whose telephone number is 571-270-1264. The examiner can normally be reached on Monday - Thursday, 9:00 am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J. Pascal can be reached on 571-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RJJ



Robert Pascal
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